Amendments to the Claims

Please amend the claims as follows:

1.   (Currently Amended) A computer comprising one or more computer-readable media and a processor, the computer-readable media containing instructions, which, when executed by the processor on the computer, cause the computer to perform the actions of a system for detecting a data race in a <u>multithreaded</u> concurrent program, the system comprising:

a program sequentializer module configured to ~~accept~~ <u>receive code for</u> a concurrent program as input and create as output a <u>single-threaded</u> sequential program <u>utilizing a single run-time stack</u> having assertions;

wherein, when the sequential program is analyzed by a program analyzer, the assertions cause an error message to be produced by the program analyzer when the concurrent program contains a data race<u>;</u>

<u>wherein the program sequentializer module is further configured to add data structures to the received code, the added data structures at least comprising:</u>

<u>a multiset of thread pointers which comprises pointers to threads which have been created but have not yet been scheduled on the runtime stack; and</u>

<u>a global boolean exception variable which, when set, causes the single-threaded sequential program to remove from the runtime stack the currently-executing thread.</u>

2.   (Currently Amended) The computer of claim 1, wherein the system further comprises a sequential program analyzer module which analyzes the <u>single-threaded</u> sequential program and produces error messages if assertions are not met and wherein the assertions are created to be checked by the sequential program analyzer.

3.   (Canceled)